

providing a second interaction layer that is responsive when the user input comprises a second pressure comprising a second threshold.

2. The method of claim 1, wherein either the first or second threshold comprises a threshold based on one of: an amount of pressure, a duration of pressure or a frequency of pressure.

3. The method of claim 1, wherein an identity of a type of touch or tap at the affordance layer determines one of a plurality of possible functions.

4. The method of claim 1, wherein the affordance layer generates a responsive affordance layer haptic effect.

5. The method of claim 4, wherein the first interaction layer generates a responsive first interaction layer haptic effect that is different than the affordance layer haptic effect.

6. The method of claim 5, wherein the second interaction layer generates a responsive second interaction layer haptic effect that is different than the first interaction layer haptic effect.

7. The method of claim 5, wherein the first interaction layer haptic effect is temporary for a first pressure level or continuous through multiple pressure levels.

8. The method of claim 6, wherein the second interaction layer haptic effect is contextual based on a selected icon on the affordance layer.

9. A computer readable medium having instructions stored thereon that, when executed by a processor, generates responses to a user input on a user interface, the generating responses comprising:

providing an affordance layer that is responsive when the user input comprises a touch or tap;

providing a first interaction layer that is responsive when the user input comprises a first pressure comprising a first threshold; and

providing a second interaction layer that is responsive when the user input comprises a second pressure comprising a second threshold.

10. The computer readable medium of claim 9, wherein either the first or second threshold comprises a threshold based on one of: an amount of pressure, a duration of pressure or a frequency of pressure.

11. The computer readable medium of claim 9, wherein an identity of a type of touch or tap at the affordance layer determines one of a plurality of possible functions.

12. The computer readable medium of claim 9, wherein the affordance layer generates a responsive affordance layer haptic effect.

13. The computer readable medium of claim 12, wherein the first interaction layer generates a responsive first interaction layer haptic effect that is different than the affordance layer haptic effect.

14. The computer readable medium of claim 13, wherein the second interaction layer generates a responsive second interaction layer haptic effect that is different than the first interaction layer haptic effect.

15. The computer readable medium of claim 13, wherein the first interaction layer haptic effect is temporary for a first pressure level or continuous through multiple pressure levels.

16. The computer readable medium of claim 14, wherein the second interaction layer haptic effect is contextual based on a selected icon on the affordance layer.

17. A system comprising:

a user interface adapted to receiving a user input;

an affordance layer that is responsive when the user input comprises a touch or tap;

a first interaction layer that is responsive when the user input comprises a first pressure comprising a first threshold; and

a second interaction layer that is responsive when the user input comprises a second pressure comprising a second threshold.

18. The system of claim 17, wherein either the first or second threshold comprises a threshold based on one of: an amount of pressure, a duration of pressure or a frequency of pressure.

19. The system of claim 17, wherein an identity of a type of touch or tap at the affordance layer determines one of a plurality of possible functions.

20. The system of claim 17, further comprising a haptic output device, wherein the affordance layer generates a responsive affordance layer haptic effect on the haptic output device.

21. The system of claim 20, wherein the first interaction layer generates a responsive first interaction layer haptic effect on the haptic output device that is different than the affordance layer haptic effect.

22. The system of claim 21, wherein the second interaction layer generates a responsive second interaction layer haptic effect on the haptic output device that is different than the first interaction layer haptic effect.

23. The system of claim 20, wherein the first interaction layer haptic effect is temporary for a first pressure level or continuous through multiple pressure levels.

24. The system of claim 22, wherein the second interaction layer haptic effect is contextual based on a selected icon on the affordance layer.

25. (canceled)

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29. The method of claim 1, further comprising:

receiving a first pressure-based input as a first user input; applying a first drive signal to a haptic output device according to the first pressure-based input;

receiving a key frame;

receiving a second pressure-based input as a second user input different from the first pressure-based input after the key frame; and

applying an interpolated second drive signal to the haptic output device based on the difference between the first pressure-based input and the second pressure-based input to provide a transitional haptic effect.

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